

Notice of Allowability

Application No.

10/509,776

Examiner

Victor K. Hwang

Applicant(s)

OGA, TAKAYUKI

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed December 11, 2006.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20070312.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Leighton K. Chong on March 8, 2007.

2. The application has been amended as follows:

In the Claims (a complete listing of claims 1-18 follows):

1. (Currently amended) An exercise assisting instrument for assisting knee-bending exercise of a user comprising:

a base;

a pair of supporting columns spaced apart and standing vertically in parallel supported on the base;

a chair ~~positioned below~~ adapted to support a user's buttocks ~~which is, the chair~~ movable along an upright path between a downward position wherein a user may be seated thereon in a sitting posture and an upward position to assist the user to a standing posture; and

a lifting device mounted to the supporting columns and to the chair and having a pair of lifting arms which are operated by the user for moving the chair upward and

downward as the user does knee-bending exercises by moving between a downward sitting posture and an upward standing posture, wherein said lifting device comprises

a respective one of the lifting arms having one end to be manipulated by a user and its other moving end operatively coupled to a respective one of a pair of sliding members slidable in a respective one of a pair of sliding slots formed in a respective one of the supporting columns for movement between downward and upward positions thereon,

a lifting mechanism coupled to the other end of the lifting arm and the sliding member for ~~supporting~~ upwardly biasing said sliding member in its sliding movement between the upward and downward positions upon operation of the lifting arm by the user, and

a lifting member supported on the sliding member and coupled to the chair for moving the chair upward and downward in conjunction with operation of the lifting arm by the user so as to ~~always~~ position the chair for supporting a user's body thereon near the buttocks of the user, which chair moves upward and downward together with the user doing the knee bending exercise, whereby the user doing the knee-bending exercise may be supported on the chair any time, accordingly the user may do the knee-bending exercise safely.

2. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~being~~ ~~characterized in that,~~ wherein said lifting device raises the chair in conjunction with

pulling movement of the user's arms on the lifting arms when the user stands up ~~with~~
~~pulling user's arms.~~

3. (Currently amended) The exercise assisting instrument defined in Claim 1 wherein said lifting mechanisms and said lifting arms are connected to each other at first hinge points, one ends of the lifting mechanisms being rotationally connected to said base ~~supporting columns~~ and other ends thereof moving upward and downward along said supporting columns, and said one ends serving as second hinge points;

a pair of lever arms having handle-parts at their ends for the user to grip, said lever arms being rotationally connected to the supporting columns at third hinge points, around which they swing upward and downward as seesaws;

a stopper for abutting the chair to stop when the chair moves down and reaches to the lowest point;

an upward movement assisting device for urging an assisting force in a direction that the other ends of the lifting mechanisms move upward; and

a connecting member for connecting the first hinge points of the lifting arms to control the movement of said paired lever arms, wherein said lifting device partially assists standing-up movement of the user and lightens a burden of the knee-bending exercise when the user stands up and pulls said handle-parts of the lever arms upward with gripping of said handle-parts.

4. (Currently amended) The exercise assisting instrument defined in Claim 3 ~~being characterized in that,~~ wherein said lever arms have length adjusting devices so the user may adjust the length thereof corresponding to the user's body size.

5. (Currently amended) The exercise assisting instrument defined in Claim 3 ~~being characterized in that,~~ wherein said upward movement assisting device is made of an elastic member which is connected between said stopper and said connecting member.

6. (Currently amended) The exercise assisting instrument defined in Claim 1 wherein said lifting mechanisms and said lifting arms are connected to each other at first hinge points, one ends of said lifting mechanisms being rotationally connected to said base supporting columns and other moving ends thereof moving upward and downward along said supporting columns, and said one ends serving as second hinge points;

a pair of lever arms having handle-parts at their ends for the user to grip;

a connecting member for connecting the first hinge points of the paired lifting arms to control the movement of said paired lever arms;

a lifting linkage having a linkage system for moving said moving ends of said lifting mechanisms upward and downward in conjunction with the movements of said lever arms;

a lifting base fixed to said moving ends of said lifting mechanisms, said lifting base moving upward and downward together with the upward-downward movement of

said moving ends and having support means for supporting said lever arms to move backward and forward; and

an upward movement assisting device for urging an assisting force in a direction that said moving ends of the lifting mechanism moves upward, wherein said lifting device partially assists standing-up movement of the user and lightens a burden of the knee-bending exercise when the user stands up and pulls said lever arms upward with gripping said handle-parts.

7. (Currently amended) The exercise assisting instrument defined in Claim 6 ~~being characterized in that,~~ wherein said lever arms have length adjusting devices so that the user may adjust the length thereof corresponding to the user's body size.

8. (Currently amended) The exercise assisting instrument defined in Claim 1 wherein said lifting mechanisms and said lifting arms are connected to each other at first hinge points, one ends of said lifting mechanisms being rotationally connected to said base ~~supporting columns~~ and other moving ends thereof moving upward and downward along said supporting columns, and said one ends serving as second hinge points;

a pair of lever arms which move upward and downward in conjunction with the upward-downward movement of said moving ends;

a connecting member for connecting the first hinge points of the paired lifting arms to control the movement of said paired lever arms;

a pair of wire members, each having an end which is used as a pulling end part pulled by the user and an other end which is connected at the first hinge point of said lifting arms so that the moving ends of said lifting arms may be moved upward by pulling said pulling end parts; and

an upward movement assisting device for urging an assisting force in a direction that said lifting mechanism moves upward, wherein said lifting device partially assists standing-up movement of the user and lightens a burden of the knee-bending exercise when the user stands up and pulls said lever arms upward with gripping said handle-parts.

9. (Currently amended) The exercise assisting instrument defined in Claim 8 ~~being characterized in that,~~ wherein said lifting arms have winding devices for winding said wire members at the first hinge points.

10. (Currently amended) The exercise assisting instrument defined in Claim 8 ~~being characterized in that,~~ wherein said lever arms have an angle adjusting device so that the user may adjust the angle of said lever arms corresponding to the user's body size.

11. (Currently amended) The exercise assisting instrument defined in Claim 8 ~~being characterized in that,~~ wherein said upward movement assisting device is made of an elastic member, which is connected between an upper end of said supporting column and the first hinge point of said lifting arms.

12. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~8-being~~ characterized in that, wherein said chair moves upward and downward in conjunction with the upward-downward movement of the moving ends of said lifting arms, wherein said exercise assisting instrument further includes ~~an upward~~ a movement stopper to stop said chair at a designated position of height.

13. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~12-being~~ characterized in that, wherein said chair has an adjusting device for moving the chair backward and forward so that the position of the chair may be adjusted to a suitable position to the user.

14. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~12-being~~ characterized in that, wherein said chair has a structure able to tilt forward so that the user may easily stand up when some part of the user's body touches said chair to tilt forward.

15. (Currently amended) The exercise assisting instrument defined in Claim 12 ~~being~~ characterized in that, wherein said stopper is a column member established under said chair and supports said chair at the upper part of said column member when said chair moves downward.

16. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~being~~ characterized in that, wherein said exercise assisting instrument further includes, an

assisting force adjusting device that adjusts assisting forces of said upward movement of said chair according to the user's condition.

17. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~being characterized in that,~~ wherein said exercise assisting instrument further includes, a counter for counting a number of knee-bending movements of the user.

18. (Currently amended) The exercise assisting instrument defined in Claim 1 ~~being characterized in that,~~ wherein said base has slip stoppers to prevent slipping so that the user does not slip.

In the Specification:

- A) Page 3, the heading "SUMMARY F THE INVENTION" is to be replaced with --SUMMARY OF THE INVENTION--.
- B) Page 8, the last line, before "and a chair" insert --a lifting member 31--.
- C) Page 14, line 7 and page 22, line 10, replace "volts" with --bolts--.
- D) Page 18, line 3, replace "armas" with --arms--.
- E) Page 18, last line, delete "241".
- F) Page 19, the penultimate line, replace "griping" with --gripping--.
- G) Page 22, line 21, replace "graduation 348" with --graduation 343b--.
- H) Page 22, line 30 (7 lines from the bottom), replace "graduation 348" with --graduation 343b--.

- I) In the amendment to the Specification filed 05/08/2006, on the last line of the amendment to pages 5 and 6 of the specification, the recitation “hinge-parts” is to be changed to --handle-parts--.

3. The following changes to the drawings have been approved by the examiner and agreed upon by applicant:

- in Fig. 6, replace the reference character “133” with --184--;
- in Fig. 11, the reference character “225” is to be replaced with --215--;
- in Fig. 13, insert the reference character --285-- identifying the wire;
- in Fig. 15, the reference character “333” is to be replaced with --384--;
- in Fig. 15, the reference character “348” is to be replaced with --343b--;
- in Fig. 16, replace the two reference characters “348” identifying the graduations with --343b--;
- in Fig. 19, replace the reference character “348” identifying the graduation with --343b--; and
- in Fig. 19, the reference character “344” is to be replaced with --349--.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

4. The following is an examiner’s statement of reasons for allowance: in addition to the remarks filed December 11, 2006 by Applicant, the prior art of record does not disclose or make obvious an exercise assisting instrument wherein the chair moves along an upright path between

a downward position and an upward position, the pair of vertical and parallel supporting columns having sliding slots formed therein for upwardly biased slidable members of a lifting device having a pair of lifting arms operated by the user.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor K. Hwang whose telephone number is (571) 272-4976. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM Eastern time.

The facsimile number for submitting papers directly to the examiner for informal correspondence is (571) 273-4976. The facsimile number for submitting all formal correspondence is (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cary O'Connor can be reached on (571) 272-4715.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor K. Hwang
March 12, 2007


Cary E. O'Connor
Primary Examiner